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INDIANS

AT WORK

SMITHSONIAN INSTITUTION



UNITED STATES DEPARTMENT OF THE INTERIOR
OFFICE OF INDIAN AFFAIRS • WASHINGTON, D.C.



I N D I A N S A T W O R K

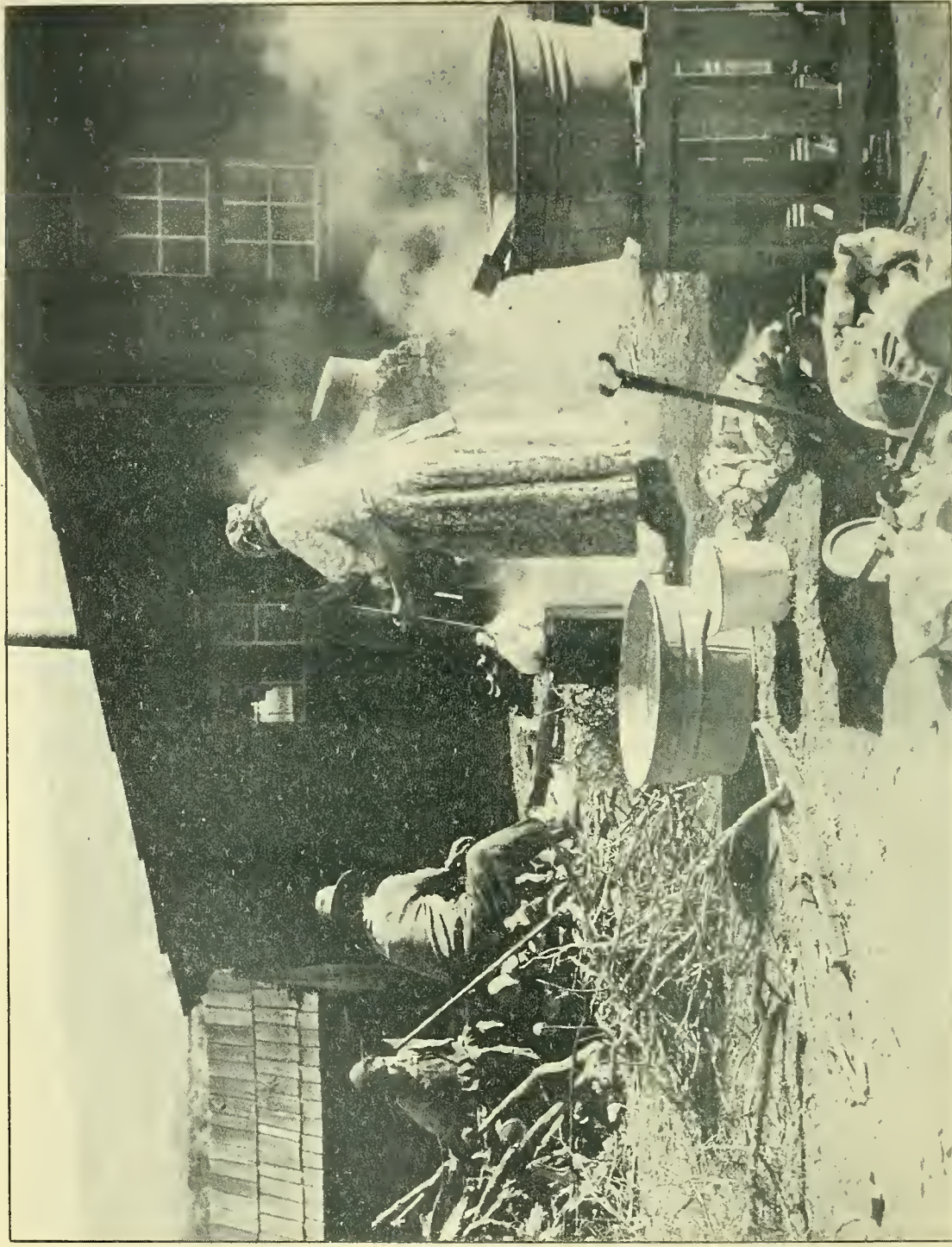
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INDIAN WOMEN LIKE TO WORK OUT-OF-DOORS: PINOLE, CALIFORNIA



Photograph by Frances Cooke Macgregor



• INDIANS • AT • WORK •

A News Sheet for Indians
and the Indian Service

• VOLUME VI • SEPTEMBER 1938 • NUMBER 1 •

A decision local in importance, yet with wide bearings on Indian life, was rendered by the Federal District Court of Southern California on July 23, 1938.

Certain Indians of the Agua Caliente Band had sued to force land allotment. Previously by a number of years, the Interior Department had started to allot the Agua Caliente (Palm Springs) lands. The tribe had protested, Indian welfare groups had supported the tribe, and the allotments were never completed. The suit at Palm Springs rested upon a double theory that allotment was mandatory upon and not discretionary with the Secretary of the Interior and that a vested right had accrued to the prospective allottees through the commencement of allotment, even though allotment had not been finished. The Court said:

"The superior title of the Government in tribal lands and in allotted lands where no patents have been issued implies, of course, wise management. It does not confer on the Government the right to despoil a tribe or an allottee of ac-

crued rights. As Mr. Justice Cardozo said so eloquently, in *Shoshone Tribes v. United States*, supra, at page 498:

'Spoliation is not management.'

But the paternalistic position of the Government also imposes an obligation to protect the tribe or individual Indians against spoliation by others than the Government, - even spoliation by fellow tribesmen. These general considerations should aid in determining what, if any, rights the tribesmen acquired through these selections for allotment. On their face, the certificates contained the legend, 'Not valid unless approved by the Secretary of the Interior.' Such approval was never given. That it was necessary is evident from the language of the Act of 1891."

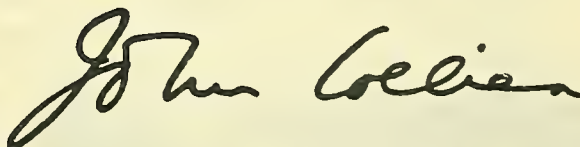
Particularly significant were the Court's words: "The Government's obligation is to protect the tribe or individual Indians against spoliation by others than the Government - even spoliation by fellow tribesmen." There are many cases where, even in unallotted reservations, a tendency toward farm land monopoly, range monopoly, absentee landlordism, and tenancy, can be seen at work. The Government's trusteeship and guardianship reach to these matters of public welfare and social healthfulness, not only as between Indians and whites but as between Indians.

A significant coincidence with the decision of the California Federal Court, is the meeting of Indian Service staff members and superintendents at Glacier Park, Montana, starting August 14, for the concentrated study of problems that have arisen out of allotments already made. All students of Indian history know of the tremendous losses of land through allotment. All allotted Indians,

and service workers at their reservations, know the other fact: that with each year, the allotted lands not yet alienated become more costly to administer and, on the whole, less productive of income and harder to make use of. A recent case given in "Indians At Work" is one wherein the subdivision of equities has gone so far that actually until the end of time there will never accumulate, for some of the heirs, as much as one dollar total. Millions of dollars a year are consumed in the unproductive administration of allotted lands. And practically speaking, more lands are being lost through heirship subdivision than possibly can be replaced by Government purchases.

Is there any solution, as a practical matter, for this problem - any ending of the "allotment nightmare?"

The Glacier Park Conference will be the most earnest effort yet made to find the answer.



Commissioner of Indian Affairs

* * * * *

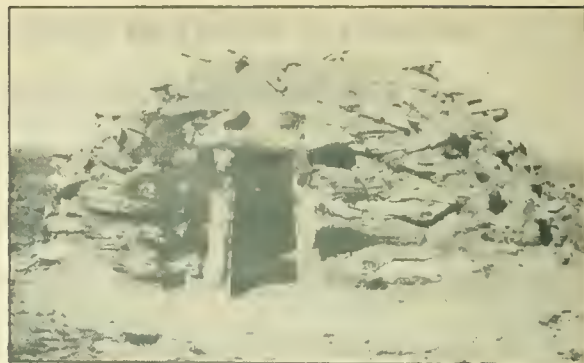
COVER PAGE

The photograph which appears on the cover of this issue of "Indians At Work" shows some Paiute Indian women gathering potatoes at Walker River (Carson Agency) Nevada.

INDIANS STILL KNOW HOW TO USE LOCAL MATERIALS FOR HOUSES



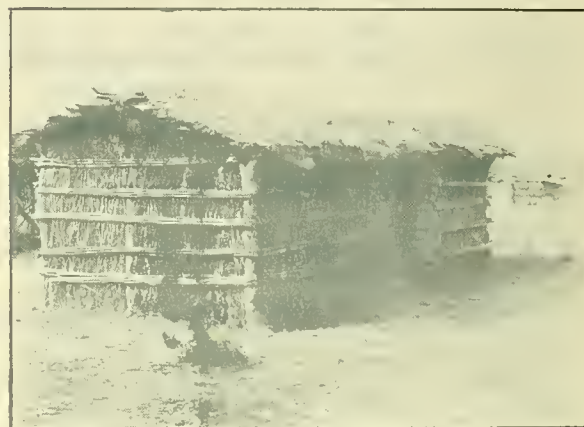
House In a New Mexico Pueblo, With
Its Owner's Harvest of Corn and Chile.



Stone, Logs and Dirt:
A Navajo Hogan, Arizona.



Florida Seminole Shelters



Ocatillo and Adobe House,
Sells (Papago) Arizona



Bark Teepee, Consolidated
Chippewa, Minnesota.



Zipper Shirt - Bark House:
Red Lake, Minnesota.

HOW INDIANS ARE HOUSED

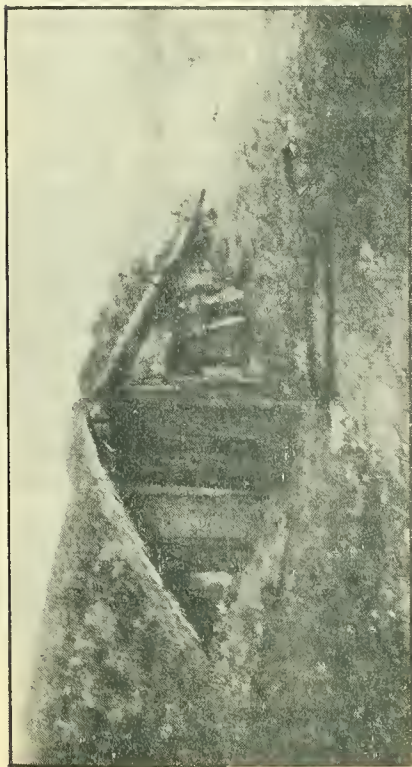
The photographs on the opposite page and on the pages following show something of Indian housing conditions. A word should be said as to this collection: Indians and employees on some reservations may feel that a photograph of a particularly bad example, which may not be typical of the reservation as a whole, reflects upon the condition and upon the ambition of their group. No such implication is intended. The number of pictures used had to be limited, and a real cross-section of every area was not possible. The purpose of presenting these pictures is to show what is true: that there is a great deal of poor housing on Indian reservations and a small amount of medium-good housing; and that in a few areas the Indian Service has been able, through allocations of emergency funds, through educational work by extension workers and teachers, through reimbursable loans, and through loans made to tribes organized under the Indian Reorganization Act, to promote better housing in some areas. The need is still very great.

The collection also shows the ingenuity of Indians of various localities and climates in building houses with practically no cash outlay from whatever materials have been found at hand: bark, grass, brush, adobe, sod, logs and in some cases, bits of tar paper, sheet metal, canvas and packing crates.

The greatest advance in Indian housing conditions during recent years has been made possible by allotments to the Indian Service from emergency relief appropriations, usually referred to as "Rehabilitation" funds. This money has been used for direct relief, for various work projects, such as sewing centers, community garden projects and for community buildings and self-help centers. Somewhat over a third, however, has been used for the construction and repair of houses and out-buildings. This modest building program has proved to be a tremendous leaven in reservation conditions. Some of the most needy families have been rehoused; repairs have been made on other houses, with family members contributing labor; and in addition, other families, observing the repairing program and the building of new houses, have been fired with enthusiasm, and have somehow secured materials and improved their own houses.

Some of the photographs were taken from a survey of housing conditions made by the Extension Division in 1933; others were contributed by staff members, and some are by Andrew T. Kelley, Department of the Interior photographer.

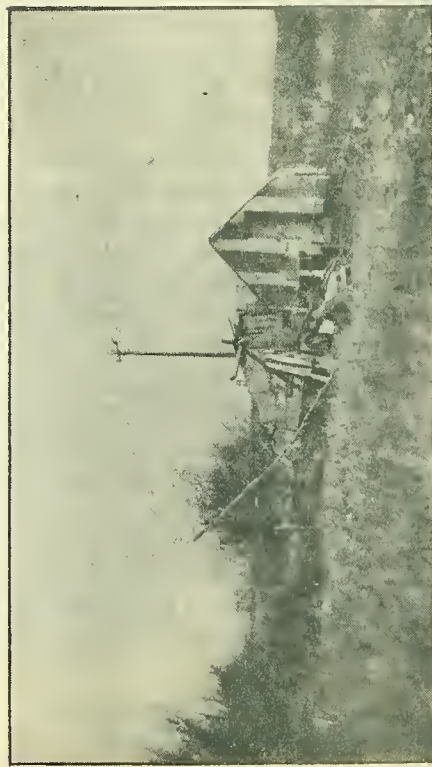
TWO BEFORE AND AFTER CASES, SHOWING USE OF REHABILITATION FUNDS



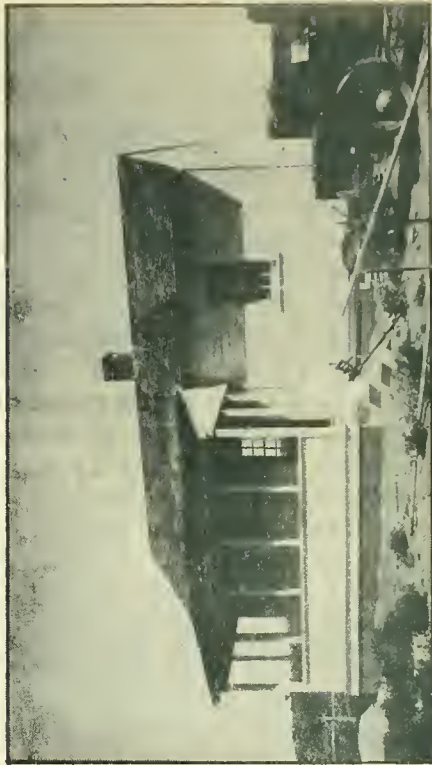
Dugout at Fort McDermitt, Carson Agency, Nevada.
Father of Family Physically Handicapped.



Same Family at Fort McDermitt in its New Home.



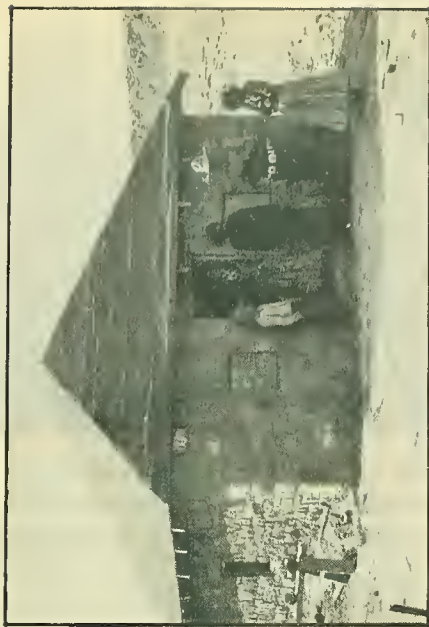
Former Living Quarters of a Family at Burns,
Oregon (Umatilla Agency).



A New House at Burns, Oregon, Built From
Rehabilitation Funds.



A Papago Homestead,
Sells Agency, Arizona



Improved Type of Navajo Hogan



Interior of an Adobe House
at Pima, Arizona



Turtle Mountain, North Dakota.
See this family's new home on p 10.

CONTRASTS IN INDIAN HOUSING



Eight People Spent the Winter in
This Tent at Pine Ridge, South Dakota.



Home on an Indian Rancheria,
Sacramento Agency, California.
This Family Has Been Rehoused.



An Apache Wickiup, Arizona



Well Kept Cottage at the Wind
River Agency, Wyoming.



Home of a Prosperous Oklahoma Osage.

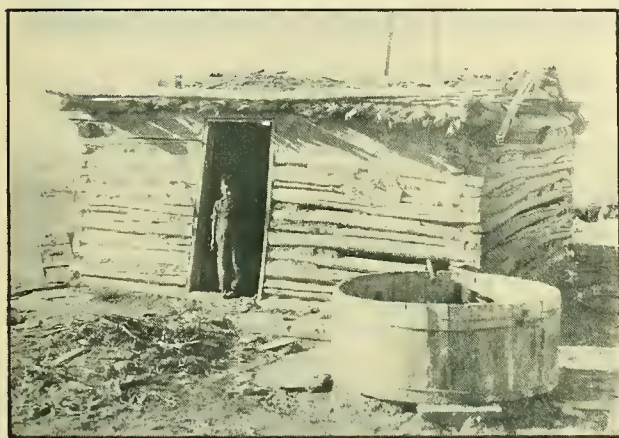


Cabin in the Cherokee Hill
Country, Oklahoma

MORE INDIAN HOMES



Above - a Ute Tepee, Consolidated Ute Agency, Utah.



Below: House at Lac Court d'Oreilles, Great Lakes Agency, Wisconsin.

Top Left - Cabin at Crow Creek Agency, South Dakota.

Left Center - Home on the Fort Peck Reservation, Montana.



WHAT IS BEING DONE ABOUT HOUSING: SOME EXAMPLES



Students at the Oglala
Community High School,
Pine Ridge, South Dakota,
Do Something About
Housing: Learning Carpentry
By House Repair.



Above: The House That Sheep Built. This is
the Home of Joseph Ironpipe, Blackfeet Full-
Blood, Which he Built Himself With Money From
the Sale of Wool and Lambs. Joe Did All the
Work From Going Up in the Mountains For the
Logs to Varnishing the Floor.



The Mescalero Apache Tribe of Arizona
Borrowed \$144,000 From the Indian
Reorganization Act's Revolving Loan
Fund With Which to Rehouse Its Members.
One Apache's Old and New Home Is
Shown Above.



This is the New Home of Dressed In
Yellow, of Turtle Mountain, North
Dakota, Whose Old Home Was Shown
On p 7 . The House Was Built From
Old Seasoned Logs.

AN INDIAN THINKS "SACRED BUNDLE" BROUGHT TOO MUCH RAIN

(Note: The following letter, which tells its own story, was sent to "Indians At Work" by Scott H. Peters, a full-blood Chippewa, employed as an Assistant Guidance and Placement Officer in Wisconsin.)

I am about convinced that the "Indian Sacred Bundle" has much to do with the control of the weather.

Early this spring I read in an issue of "Indians At Work" that a delegation of Indians had been sent to a Museum in New York to recover their "Sacred Bundle" and they returned with it to their native home in North Dakota. Since having it again in their possession, there has been such an abundance of rain that much destruction has been done. Most of this is because there are not enough trees and shrubbery in our country at the present time to absorb the excess moisture as in the early days.

In my travels I have seen field after field of corn, potatoes and other farm products standing under from ten to twenty inches of water, great fields of wheat and oats broken down by the force of the winds and rain. Many road and railroad bridges have been washed away bringing a large death toll. Lightning too has played its part for just today I read in the newspaper of a storm, during which two men were killed by lightning while working in their field. Floods have left death and disaster in their paths, and are still raging in the central part of Wisconsin. As late as July 14, while traveling on a concrete road, I came upon a large body of water where a river had overflowed, covering the road and only with careful but hazardous driving was I able to reach the other side.

I would like to suggest that the Indians be induced to return this "Sacred Bundle" to the Museum in New York where it has been kept since it was captured many years ago and let the white man control the weather.

FROM THE ATLANTIC SEABOARD TO CANADA, TEXAS AND OKLAHOMA

The Story Of The Delawares

By Minnie A. Garrett, Delaware Indian

The name "Delaware", by which our tribe is now known, was given by the English, due to the fact that the tribe in early Colonial days occupied the entire basin of the Delaware River in Eastern Pennsylvania and Southeastern New York, together with most of New Jersey and Delaware. They called themselves "Lenape" or "Leni Lenape", which translated means "native men or genuine men." By virtue of their admitted priority of political rank, because of their occupation of the central home territory from which most of the cognate tribes had diverged, they were accorded by all Algonquian tribes the respectful title of "grandfather."

When they made their first treaty with William Penn in 1682 they were a powerful nation. Their council fires burned where Germantown, a suburb of Philadelphia, now stands.

William Penn had agreed to meet the Delawares personally to confirm the treaty of peace and the purchase of the land which his commissioners had bargained for. The transaction was to be publicly ratified. Penn came, accompanied by his friends, to the place where Philadelphia now stands. When he arrived he found the chiefs and their people all assembled. They were seen as far as the eye could reach up the river and down the river and in the forest beyond. The Quakers were but a mere handful in comparison. They were unarmed.

Penn carried the roll of parchment. The head chief put upon his head a kind of chaplet in which appeared a small horn, the emblem of kingly power. Upon putting on this horn the Indians laid down their bows and arrows, for the place and the occasion had become sacred. The Indians seated themselves upon the ground to form a half-moon in groups. The chief then announced to William Penn by means of an interpreter that they were ready to listen. The treaty was ratified with due solemnity and is known today as the treaty that was never sworn to and never broken.

Soon afterward began their gradual journey westward. In 1742 they removed to the basin of the Susquehanna. In 1751 they were removed yet further from the Alleghanies, always referred to

as their "home over there", and for which they never ceased to long, to Ohio.

In 1768 they were again removed and established three towns on the Muskingum River. These groups were called Christian Indians because of the results of the influence of the missionaries among them, several of whom had migrated with the Delawares. Their life there ended in a shameful massacre, which threw the Christian Indians into despair. From this period the tribe began to break up. One group removed to Canada where their descendants yet remain.

On September 17, 1778 the United States entered into an alliance with the Delaware Nation of Indians for offensive and defensive purposes, thus making the Delaware Nation the first allies of the United States Government. In the treaty of 1778 all Delawares' rights were to be respected to the fullest and a state was formed inviting all friendly tribes to join with the Delawares at the head, entitling them to send a representative to Congress.

By every act the Delawares have remained steadfast in their support of the United States Government and have furnished soldiers in all wars. During the Revolutionary War the Delawares furnished the Colonial Government two colonels, White Eyes and Win-Ge-Nord, and about 900 soldiers under Chiefs Killbuck, Kelelamand, Pushees and Wicacolind. Five Delawares served among the personal bodyguards of General Washington. As evidence of the appreciation which General Washington and Congress had of the distinguished services of the Delawares, Congress educated three Delaware youths, relatives of the chiefs who had served the military forces during the Revolutionary War, at Princeton College.

It was the Delawares who guided General Fremont across the Rockies. Over one hundred fought with Captain Black Beaver in Old Mexico and it was a Delaware who pulled down the flag at Monterey. In the Civil War, from a population of 201 males between the ages of 18 and 45, the Delawares sent 170 to the Union Army.

One Delaware group, grown restless with the constant migrating, had joined a band which was later known as Absentee Shawnees. After receiving permission from the Spanish Government, they came down into what is now Arkansas and Missouri and on into Texas. Here, under Black Beaver, they played an important part in the establishment of the state. They acted as guides, scouts and interpreters between the Government and other tribes. In return they were guaranteed title to land by Sam Houston, then President of the Republic of Texas. They began living with the Caddo tribes before the Civil War, then went to Kansas with some Shawnees during the war, and returned at the close of the war.

There are about 100 descendants of this group living around Anadarko, Oklahoma, today. They are allotted as Wichita Indians but they have always lived among the Caddos and have intermarried with them and most of them speak the Caddo language. Recently these Delawares organized and elected a chief, assistant chief and other officers.

Meanwhile, the northern group of Delawares had been informed by the Government that they must move from their Ohio home. It was a sad, disheartened procession that found its way across the plains to Kansas. They were hurt too deeply to cry: they had left a part of themselves there.

The procession reached Eldorado, Kansas, in 1829, where they again established homes and again built their meeting house as they had done so many times before. By 1835 most of the tribe was settled upon the reservation. In 1867 they were again removed. This time they went into the Indian territory where they purchased land from the Cherokee Nation and in addition, matched dollar for dollar the money in the Cherokee treasury. In return they received equal rights with the Cherokees as Cherokee citizens. They no longer had a chief with official power, but lived under the Cherokee law. They settled in the northeastern part of Oklahoma, along the Kansas line. One of their first acts was to build their meeting house again, where for many years they practiced their tribal religious ceremonies.

On the full moon of each October they held a religious ceremony in this meeting house which lasted twelve days. Here they gathered with other invited tribes. At these meetings any brave or chief could tell of his experiences in hunting or warfare, never claiming any of the honors for himself if he had been successful in any event, but always thanking the Great Spirit or Manitou for his success. The older members fully believe misfortunes have been sent upon them because they deserted the form of worship which their ancestors taught them.

The old meeting house has fallen down. The last of the logs were put in the University of Tulsa to be preserved. They still belong to the tribe and would come back to the tribe if the church were ever rebuilt.

So it is that the last landmark of this once powerful nation has fallen. There are left very few of those who made the last move, not more than twelve. Their proud heads are white; the great tribe is scattered; they come no more to the meeting place to worship and offer praise of thanksgiving around their great council fires.

DITCH CLEANING AT JEMEZ PUEBLO IN NEW MEXICO

By Ten Broeck Williamson, Soil Conservation Service

NOTE: Photographs in this article are by the author and are used through the courtesy of the Soil Conservation Service.



One of the best examples of the community aspect of Pueblo Indian life is found in the annual spring ditch cleaning. When the order is issued by the Governor, every available male member of the pueblo must present himself, equipped with the inevitable short-handled shovel, to assist in cleaning and repairing the

community ditch, or ditches, for use during the ensuing year. Those unable to be present must supply others to work in their places. Since, as members of the pueblo, all share in the use of the community ditch, all are required to contribute to its repair and maintenance.

At Jemez Pueblo, although the period varies with the weather, cleaning usually begins about February 25. It takes ten days to clean the four pueblo ditches. The morning that work is to start, on foot, by horseback and in wagons, the men gather at the upper end of the ditch. In the early morning light, shovels on shoulders, they resemble marchers in a straggling army. The women of the pueblo share in the community spirit of the work by providing for the men lunches which contain unusual foods and special treats.

As the men arrive, they divide into groups of about fifteen each. Those having the same surname join the same group.



Thus all men bearing such common names as Loretto, Toya, Sando or Yepa, work as a unit. Smaller name-groups often are combined or are augmented by those who have unique surnames. The same unit idea is used in other ways, and is of such long standing that each worker knows automatically with which group he is to work.

When the groups are ready, the Governor assumes command. From the head of the ditch, he steps off fifteen or twenty paces, marking the distance in the silt of the ditch bottom. The number of paces marked off varies with the amount of silt and brush to be removed from that particular section of the ditch. The groups made up of the Governor and his officers take this

first area to clean. The second area is assigned to the cacique's group; the third to the war captain and his men; and the fourth to the Koshare or clowns. The next sections are taken by the various name groups, until every group has an allotted section of ditch to clean.

At the Governor's command, the units set to work vigorously. A season's accumulation of silt and debris is shoveled from the ditch. Brush is hacked and roots are dug. The entire line of 200 men is one move-





ment of bending bodies, flashing shovels, flying silt and brush. Each unit tries to be the first to complete its assigned section.

Soon the fast pace slackens as group after group finishes. Leaning against shovels or the bank, they pause to wipe the perspiration from their faces and to chide those who are still working.

The Governor walks along the ditch, inspecting and directing the work. When all the groups have finished and the ditch is thoroughly cleaned, he gives the signal and the entire column marches up the ditch a distance equal to its own length, or equal to the section of ditch which has been cleaned. Again the Governor paces and assigns an area to each group; again the furious shoveling; and again the pause before the line moves up the ditch.

At noon the men leave the ditch, hungry and eager to see what the lunches contain. Still by name-groups, they gather in a sheltered place around a blanket. On it is spread everything from the lunches: an abundance of food



in which all share, and which, in an amazingly short time, has disappeared entirely.

And so, shoveling, resting and pausing to eat, the column moves down the ditch as the men discharge their community obligations.

* * * * *

A WALRUS HUNT

By Sullivan Coan, Teacher, King Island, Alaska

Since coming here to live I had greatly wanted to go on a walrus hunt with a group of native hunters from King Island. One day in the spring the chief asked me if I would like to go with him in his large oomiak. Here was my chance and go I did.

The 42-foot skin boat, or oomiak, was pulled carefully over the shore ice - to prevent tearing - and was safely launched. The equipment, including hunting bags, guns, oars and the outboard motor, was stowed in place.

Everyone dresses warmly for these trips. I could hardly bend when I was fully dressed. I had on one pair of work pants and another pair made of heavy mackinaw cloth, mukluks with two pair of heavy wool socks inside, a wool shirt, a mackinaw and a denim parka with a stocking cap under the hood. I wore one pair of woolen gloves under leather mittens and had an extra pair in my pocket. Still my Eskimo friends were afraid I would be cold.

I had no rifle, but I stuck a knife in my belt, put my motion picture camera and two rolls of film in my pocket, and boarded the boat, in which there were already thirteen Eskimo hunters.

The Eskimos had sighted the herd on an ice floe six miles from shore toward Siberia. After sailing an hour the motor was cut off and we pulled up beside an iceberg. One hunter crawled up with a telescope and located the herd. After a few minutes' discussion they decided upon a plan of action and we again set sail.

Fifteen minutes later we saw the herd. Another iceberg was scaled; there was more talk; the outboard motor was shut off and we took to the oars so we could sneak up on the walrus. We rowed among ice floes until we were directly behind one on which

was a large herd of walrus. The men climbed out of the boat on to the ice and the war was on.

All of my shooting was done from the boat with my movie camera. During the excitement I happened to glance back of me and saw six walrus headed for my boat. Thinking I would not care for their company, I made preparation to jump. They dived, however, and disappeared.

The dead walrus were collected on the ice floes and the butchering began. The ivory tusks were taken first as they are extremely valuable for carving. The skin is about an inch thick and when split, dried and stretched, is used for making oomiaks. The blubber is from three to four inches thick and is a good food. Under this is the meat. A walrus weighs from one to two thousand pounds.

Out of the kill I secured three tongues, the only part of the animal palatable to whites. If you stretch your imagination you might think you were eating beef tongue.

We loaded our boats quickly, for we discovered the ice was closing up and we had to get out while there was open water. When the ice closes in, boats are often crushed, and when they are dragged over the ice to open water they are often punctured. This offered a dangerous hazard so far from home.

When we were about a mile from the Island the wind came up and the sea became rough. When we reached the shore we had a difficult time landing. After unloading we pulled the boat upon the permanent winter ice field. The men would not let me help very much as I did not have water mukluks nor seal skin pants on and they were afraid I would get wet.

After the boats were up, the spoils of the hunt were divided. First the meat was proportioned out in small piles, one for each man. (I gave mine to the chief.) The skin goes to the man who skinned the walrus. Then the tusks were laid out according to their size by some of the older men. Each man takes one of the largest tusks until every one has at least one. This continues until the pile is too small to allow each man one more. The ones left are given to the boat owners to repay for gasoline and motor repairs.

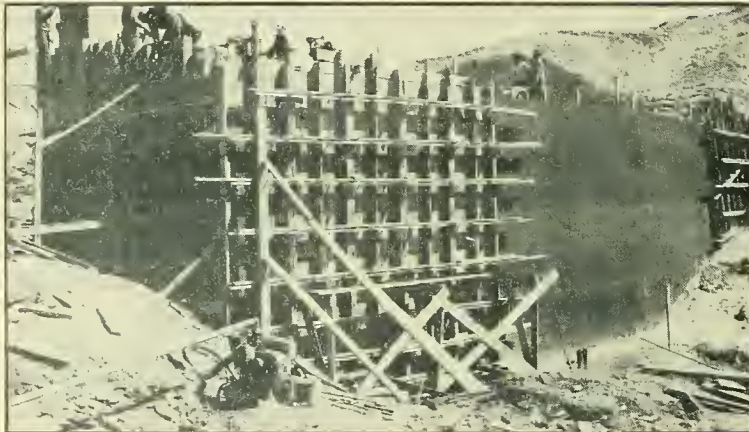
The Eskimos insisted that I take my share of ivory and the meat. But what could I do with it? So I thanked them warmly and told them I had been amply paid by the fun and the chance to make movies.

THE WHITE CLAY DAM AT PINE RIDGE

By Russell E. Getty, Senior Project Manager

Two miles south of the agency at the Pine Ridge Reservation, South Dakota, the White Clay Dam, started in July, 1937, is being completed by Indian CCC workers. This dam, whose water will irrigate 350 acres of crop land, will play an important part in the lives of the Indians living in the White Clay Creek area.

During the hot summer months of recent drought years, White Clay Creek has ceased to flow, shallow wells along the creek have failed, and water holes used by livestock have dried up. Repeated emergency requests for water developments to relieve water shortages have reached the CCC-ID office at the Agency. The White Clay Dam is designed to solve the problem for the many Pine Ridge Indians living along the creek: in addition to making subsistence garden projects possible, it will be used for stock water, for fishing and for recreation. In addition, it will serve to control local floods.



Pouring the Last Section of Concrete on the Wing Walls at the Bottom of the Spillway, June 1938.

Although the importance of other uses should not be minimized, the dam is justified for irrigation purposes alone, since through irrigation the project could pay for itself. The irrigable land is within two miles of the dam and extensive ditching and fluming is not required. Maintenance costs will therefore be small. The Indian Irrigation Division contributed funds for the construc-

tion of the dam and, at the present time, is supervising the building of the irrigation system in cooperation with the CCC-Indian Division.

Tribal communities, Extension and Education workers, and CCC-ID men as well have worked together in developing irrigated



That Portion of the Transit Pipe Which Goes Through the Fill Must Be Tamped Mechanically. A Portable Electric Tamper and Two Portable "Borco" Gasoline Tampers Are Here in Use

subsistence gardens throughout the reservation, and have established the fact that irrigation in this region can be successful, if members of Indian communities can be taught proper methods of irrigation. A large portion of the irrigable land on the White Clay is included within the present boarding school farm. On this part of the project Indian pupils will learn modern irrigation methods, thereby equipping them for further teaching of their fellow tribesmen in their home communities. The remaining land is being developed for subsistence and resettlement projects for the large Indian community centered about the Agency.

Engineering Problems Complicate Job

Here are a few facts about the dam which is to make possible these objectives. It contains 65,000 cubic yards of fill; has a $3\frac{1}{2}$ to 1 front slope, and a 2 to 1 back slope; has a 16-foot top; is riprapped on the front face with a one-foot thickness of native rock; has a concrete spillway 100 feet wide and 156 feet long with 8-foot sidewalls at the top and 18-foot walls at the bottom; is provided with pipes and gates for letting water downstream,

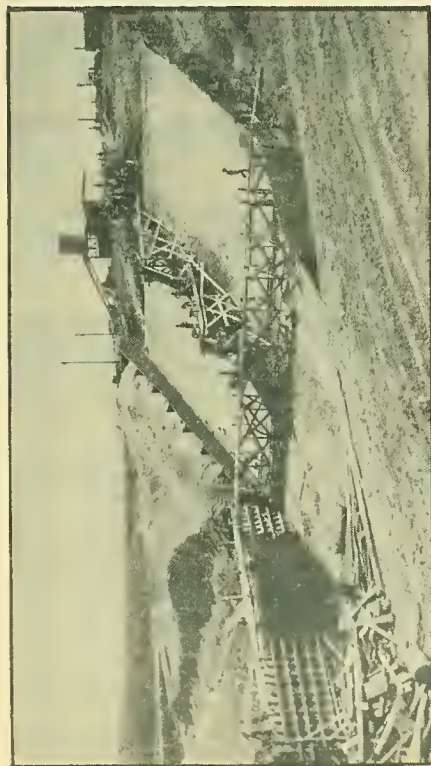
and for controlling irrigation waters covering an area of 110 acres and impounding 1,500 acre-feet of water.

The construction problems were many and varied and gave both the local staff and the district office engineers from Billings much to think about. Here are some of the problems: In beginning, the soil which was to be used in the fill was tested by the Reclamation Service and pronounced too fine in particle size to be used safely. That circumstance necessitated a change in the fill design, and made necessary particularly careful placing. Next, evidence of alkali appeared in the spillway excavation, and it was feared that concrete could not be placed with safety. Tests by three different laboratories dispelled our fears.

While the work was in progress, the Bureau of Standards was running model tests on the spillway, results from which necessitated minor changes in design. Flooded borrow pits caused small springs to start through unsuspected gravel seams to hamper the work and make annoying demands upon pumping equipment. Thousands of yards of excavated material could not be used on the fill because it was hard shale which disintegrated to a floury material upon freezing and thawing - as found through tests completed by our district office. Gravel layers in the reservoir basin made it necessary to extend long core trenches on both ends of the fill. An early freeze that came to stay stopped the work in the fall at a difficult stage. When the frost left, boggy springs developed behind the core wall and persistently defied our efforts at compaction. Two minor floods on the creek and an unprecedented rainy period caused a loss of approximately two weeks effort.

Inexperienced Workers Do Fine Job

While the technical problems increased, we were forced, in the middle of the year, to reduce our staff. Engineers, skilled laborers, tractor operators, were replaced by enrollees. This caused the one faint flicker of discouragement. As the job went on with enrollee carpenters, steel men, concrete finishers, mechanics, tractor operators and engineers, the spirit of the crew developed. No one said, "I can't," and the effect was electrifying. The difference between these enrollees and skilled laborers or skilled machine operators is a difference in experience, and the newer men are rapidly making up that difference.



General View of the Spillway as the Last Concrete is Being Poured. Note the Staging Required. Two Concrete Mixers at the Top of the Chute Were Used Continuously on this Job.



This Section of Transit Pipe Runs From the Fill to the Spillway.



When the Forms Come Off the Grinder is Used to Smooth the Concrete. It is Kept Moist By the Sprinkler. Then it is Sprayed With Asphalt Emulsion to Complete the Curing Process.



A Conventional Home on the White Clay Dam.

THE AMERICAN INDIAN SIGN LANGUAGE

By John P. Harrington, Smithsonian Institution

(Note: This is the first part of Section 3 of an article on the American Indian sign language. The first section appeared in the issue of March, 1938, and the second section appeared in the issues of July and August, 1938.)

What Had Been Done Before Scott's Work?

Prior to the motion picture filming of the sign language by Major General Hugh Lenox Scott in 1931-32, the fascinating story of which I am about to tell, seven major works had been published on the American Indian sign language.* The first and fourth of these were without illustrations. The second and third, both by Mallery, had a few illustrations depicting certain signs. Only the fifth, sixth and seventh were illustrated by diagrams. Photography, either in the form of still or motion pictures, was not employed in the preparation of any of these seven works. Clark's work was written by a man thoroughly versed in the subject and also contains unique historical material. Credit is to be given to Hadley for initiating the system of diagram depiction. The appearance of the books embraced a period from 1822 to 1936 - more than a hundred years - and during the last quarter of this period, motion pictures were invented and developed. It remained for General Scott to use them for recording the signs.

* 1. Long, Stephen Harriman, The Indian Sign Language, Account of an Expedition from Pittsburgh to the Rocky Mountains, Performed in the Years 1819 and '20 by Order of the Honorable J. C. Calhoun, Secretary of War; under the Command of Major Stephen H. Long. Philadelphia, Pa., 1822-'23. 2 vols. Vol. 1, pp. 378-394. Presents 104 signs. The outstanding pioneer work on the subject.

2. Mallery, Garrick, A Collection of Gesture-Signs and Signals of the North American Indians, with Some Comparisons. (Published as proof-sheets.) Distributed only to Collaborators. Smithsonian Institution, Bureau of American Ethnology, (Miscellaneous Collections No. 1). Washington, D. C., 1880, pp. 1-329. This is a compilation of many earlier published minor works on the American Indian sign language, including that of Long, and also embodies the materials in a manuscript by Dodge, and in a manuscript by Corbuser. It consists of: 1. dictionary of signs, English translation alphabetic order, pp. 17-293, presenting some 631 signs; 2. dictionary of tribal signs, pp. 294-307; 3. texts in sign language, the first ever published in a major work, pp. 308-319; signals, pp. 320-329; all presented without diagrams. This work was printed as proof-sheets with the same idea and at about the same time as Filling's well-known printed proof-sheets of American Indian Languages on some of the American linguistic families.

3. Mallery, Garrick, Sign Language Among The North American Indians Compared With That Among Other Peoples and Deaf Mutes, 1st Annual Report, Bureau of American Ethnology, Washington, D. C., 1881, pp. 263-552. Consists largely, as regards signs, of excerpts taken from the "Collection" published as proof-sheets the year previous, but containing many diagrams of signs and other illustrations, and with much general material added.

4. Clark, William Philo, The Indian Sign Language, Philadelphia, Pa., 1885, 443 pp. The dictionary section, having English translation alphabetic order, occupies pp. 21-409, and presents more

I list these publications here in the order of their appearance, and since, barring new editions of Tomkins' book, they are all that has appeared on the subject up to the present time. Their listing here furnishes a complete bibliography on the American Indian sign language.* It is interesting to note that three of these authors - Long, Mallery, and Clark - were Army men.

"Loose Pants," Also Called "Glasses Man": A Military
Man Who Was Also An Ethnologist

Hugh Lenox Scott was born at Danville, Kentucky on September 22, 1853. Hugh L. Scott followed an Army career. He graduated from West Point in 1876, and, as he used to tell with a chuckle, he was fourth from the bottom of his class. At the time when young Scott graduated, Indian wars were rife in the West, and his first thought was to go West to see active Service. So the young man came directly to Washington, D. C., upon his graduation, saw certain people in authority, and was assigned June 26, 1876, to the 9th Cavalry which was then doing service in the Montana region. He obtained a little later a transfer to the 7th Cavalry which had, before he joined it, participated in the Battle of the Little Big Horn. He served in the 7th Cavalry during the remainder of the Sioux campaign and after that in the Nez Perce war. His earliest service was in Montana and the northern country. Later he was stationed for many years in Oklahoma, where he gained a deep knowledge of the Kiowa Tribe. During a period of 38 years he received promotions and assignments to various posts in what ethnologists call the Western Plains Area - which, as we have seen, is the area where the American Indian sign language reached its peak of development.

than 1,000 signs. Without diagrams. The work contains in its introductory portion and as entries under tribal signs, very valuable early historical data on the peoples of the Western Plains.

5. Hadley, Lewis F., Indian Sign Talk. (Place of publication not given.) (Copyrighted) 1893, 273 pp. Presents 577 signs, all of them illustrated by diagrams, also valuable texts in sign language, the second ever published. The dictionary entries are reprints of Hadley's cards. The sign language text of the 19th Psalm reproduced at the end of this article is taken from Hadley, with emendations. This book is a pooling of Hadley's material, most of which was also published piecemeal.

6. Seton, Ernest Thompson, Sign Talk, Garden City, New York, 1918, 237 pp. Presents 1725 signs, by far the largest number given in any of these dictionaries. English translation alphabetic order; many of the signs illustrated with diagrams. Based mainly on the Cheyenne form of the American Indian sign language, but worked out with thought of use by the Boy Scouts of America and for other practical use, and including even some non-Indian signs. Prepared in consultation with General Scott and with many others.

7. Tomkins, William, Universal Indian Sign Language of the Plains Indians of North America; together with a Dictionary of Synonyms Covering the Basic Words Represented; Also a Codification of Pictographic Word Symbols of the Ojibway and Sioux Nations. San Diego, California, 1926, 77 pp. This book has already been published in seven editions, the second edition appearing in 1927 and containing 96 pages. Starting with the second edition the book was officially adopted by the Boy Scouts of America, and by other organizations. The seventh edition appeared in 1938. In the second edition, following the introduction, a first and main section of the work consists of a sign language dictionary, English translation alphabetic order, the dictionary occupying right-hand pages and diagrams illustrating some of the signs occupying left-hand pages. The seventh edition has French and German equivalents added.

General Scott became trusted adviser to the Indians everywhere and a most able executive in their behalf. And more than this, he became the first U. S. Army man who was a real ethnologist, publishing articles and accumulating an invaluable mass of early photographs. (These came as a bequest into the possession of the Bureau of American Ethnology, which he had for years befriended, only in June, 1938.) He was appointed Chief of Staff, bearing the title of Major General, on November 17, 1914, but was too near the retirement age to receive the appointment, which was given to General Pershing. September 22, 1917, he was legally retired because of age and service, but because of the World War, he remained on active duty until May 12, 1919, when he received his final retirement. He remained, however, an extremely busy man, holding various positions until a year before his death, which occurred in the Walter Reed Hospital in Washington, D. C., on April 30, 1934, at the age of eighty-one years. He is buried in the Arlington National Cemetery in Virginia, near Washington, D. C.

General Scott was plain and unassuming. He would talk with anybody. He could hold his own with any ethnologist. As he used to say, he always put the civil above the military and the scientific above all. Among other lines of achievement, he became an expert user of the sign language. Milburn L. Wilson, the present Undersecretary of Agriculture, tells me how he met General Scott in the summer of 1919, then in his 66th year, at the Crow Agency in Montana. Mr. Wilson spent four days with General Scott at the Crow and Cheyenne Reservations which are adjacent to each other. Mr. Wilson was told, on his arrival, that the general was in the dormitory of the Crow Indian School, and there he found him dressed in a First Sergeant's modest uniform, pouring over a card catalog of the American Indian sign language.

The next morning the general took Mr. Wilson on a goodly walk afoot to interview an old Crow woman who was drying wild plums. The general negotiated with her for the purchase of some of the plums, dried in old Indian fashion, which were used by the general as a most excellent purgative - all in the sign language, with Mr. Wilson looking on and marveling indeed. The following day, the two visited the Custer battlefield at Little Big Horn, Montana, twelve miles away. In the fall of that same year, Mr. Wilson met the general again at the Yankton Reservation in South Dakota - still busily engaged in his studies of the sign language.

General Scott was a warm personal friend of Buffalo Bill and knew nearly all the other notables in the early West. He also traveled in remote parts of the earth and found resemblances to the American Indian sign language among signs used by savages in distant lands. He saw brief service in the Philippine Islands, where

Major General Hugh L. Scott And Colonel William
Frederick Cody (Buffalo Bill)

These Two Friends Of Indians Were Themselves Fast Friends



(From the Scott collection of photographs bequeathed to the Bureau
of American Ethnology, Smithsonian Institution,
received from General Scott's widow in June 1938.
Courtesy, Bureau of American Ethnology, Washington, D. C.)

several of his fingers were mutilated in an explosion. Strange to say, the Kiowas, the Indians who knew him best, never associated him especially with a knowledge of the sign language, but knew him by two Kiowa names: Khaakhaae (both syllables high accent), Loose Pants, referring to his military pants, and less commonly as Haa^hta^hak'ia (1st syllable high falling, 2nd syllable low, 3rd syllable low), Glasses Man, because he wore glasses. It will be noticed that neither of these names refers to him as sign user. It is said, however, that the Cheyennes sometimes called him Sign User.

The Ethnologist General Harbors For Years A Secret Plan

Although stationed far from where motion pictures were being invented and where even the coming of one or two was a rarity in the early days, General Scott carried for years in the back of his head what the Germans call "eine fixe Idee." He talked about it to no one. Ever since Senator Leland Stanford in the 'eighties of the past century took snapshots in rapid succession of race horses at his Palo Alto, California, course, ever since in the 'nineties cardboard zootropes came out as a supplement to Sunday newspapers which, when mounted at home and whirled by hand, showed pictures in motion, General Scott had held in deepest secret the idea of using succession photography for rescuing from ultimate oblivion the American Indian sign language.

A Bill Is Passed By Congress For An Unusual Scientific Purpose

General Scott observed that the old Indian people really talked with their hands, while the "younger generation", even including such men as Richard Sanderville, now in his sixties, although having an enormous knowledge of the signs, used them in a less intuitive and vivid manner. He had seen the oldest Indians pantomime their thoughts and express much by making a few general movements. He had seen several of the best sign talkers, as, for example, as his dear Kiowa friend I-see-you, go down to their graves without any recording of their fund of sign knowledge.

On the other hand, his live interest in the Boy Scout and Girl Scout movement made him hope that, if suitable recording means could be quickly found, the American Indian sign language could be perpetuated and preserved indefinitely by the youth of America.

Realizing that proficiency in the sign language was becoming obsolete, General Scott strove desperately to find a means of getting it filmed before the few remaining best users should pass away.

In 1930 the aging general persuaded influential friends in Congress to introduce and pass a bill* setting aside \$5,000 to be used for the film recording of the American Indian sign language under his supervision. Thus the sign language enjoys the honor of having been rescued photographically through a special act of Congress and through the instrumentality of one of America's most famous post-Civil War generals. The dream of earlier years, the urgent plan of later years, had been realized.

A Sign Council

General Scott chose not the Kiowa Agency in Oklahoma, where he spent so much time, but the Blackfeet Agency at Browning, Montana, as the place for the work. By joint agreement between the Office of Indian Affairs, Department of the Interior, and the Office of Motion Pictures (now the Division of Motion Pictures), Department of Agriculture, the field filming of the sign language was arranged to be done under the personal direction of General Scott in September, 1930. For this purpose, Blackfeet Superintendent, Forrest R. Stone, summoned various old sign-talking Indians suggested by General Scott to come to Browning and telegrams were sent out to the Crow, Tongue River, Standing Rock, Fort Belknap, Fort Berthold, Flathead and Shoshone Agencies, inviting the various superintendents and agents as well as certain Indians to attend a sign council at Browning. Mr. Raymond Evans, Chief, Office of Motion Pictures, and Mr. Eugene Tucker, Cinematographer, Office of Motion Pictures, went to Browning from Washington. Mr. Malcolm McDowell, Secretary of the Board of Indian Commissioners, handled the details in connection with the transfer of funds, and the administrative end of the inter-departmental agreement.

As matters worked out, fourteen of the invited Indians came to Browning and became members of the unique sign council, of which General Scott was the fifteenth member. It happened that none of the invited superintendents and agents came. The fourteen Indians who attended were: Tom White Horse, Wyoming, Arapaho; James Eagle, North Dakota, Arikara; Rides Black Horse, Montana, Assiniboin; Mountain Chief, Montana, Piegan (Blackfeet); Bird

* The language of the authorizing act of Congress, approved April 8, 1930, by the 71st Congress, Second Session (see U. S. Stat. 46, p. 147) in its most essential part is as follows: "That there be hereby authorized ... to be expended in the discretion of the Secretary of the Interior, in making a permanent record of the sign language of the American Indians by whatever means may to him be advisable, and to meet the expense of recording motion and sound pictures through the instrumentality of Major General Hugh L. Scott, retired, and such Indians as may be required to assist him, the theory, history and practice of the said sign language." The appropriation which had the above mentioned Act as its authority is the Second Deficiency Act for the fiscal year 1930, approved July 3, 1930, 71st Congress, Second Session (U. S. Stat. 46, p. 875).

Rattler, Montana, Blood; Strange Owl, Montana, Cheyenne; Deer Nose, Montana, Crow; Bitter-root Jim, Montana, Flathead; Drags Wolf, North Dakota, Grosventre; Assiniboin Boy, Montana, Grosventre; Foolish Woman, North Dakota, Mandan; Fine Young Man, Canada, Sarcee; Dick Washakie, Wyoming, Shoshone; Iron Whip, Montana, Sioux.

It will be seen that these fourteen members represented almost as many spoken languages, making it possible to record tribal diversities and relative richness of vocabulary of the sign language. Richard Sanderville, Blackfeet, served particularly as interpreter.

The Blackfeet Agency at Browning, Montana, was selected by General Scott as the site for the council. Mountain Chief, 82-year-old and blind Piegan (Blackfeet) Chief and expert sign user was host to the council.



Mountain Chief And Major General Hugh L. Scott
At Browning, Montana In 1930. Mountain Chief Purchased The
Suit He Is Shown Wearing Especially For The Occasion.

Just opposite the Blackfeet Agency at Browning, Montana, three large Piegan-style tipis, or native circular lodges were built by the Indians in a row from north to south. These tipis invariably have the door to the east. The central tipi of the row was used for the council meetings. To the north of it stood the mess tipi, while the southermost tipi was for the women's quarters. The motion picture and still exposure photography was done entirely by daylight, the eastern side of the upper cloth covering the council tipi being removed to give good lighting. The motion picture tripod was placed in the door of the tipi. The fourteen members of the council sat on the ground around the western inside wall in a semicircle as the camera was turned on the talkers one by one.

As the representatives filed into the council tipi in full costume, General Scott greeted each of them with signs of welcome. Each representative was then filmed separately as General Scott asked him in sign language his name and tribe. General Scott talked, in signs, about the large vocabulary of the sign language and about how signs have been added, as have also newly-formed words in spoken languages, during recent years to provide terms for the white man's gadgets - which, he implied, the Indian might get along better without. The radio, for instance, was, he told them, just the opposite of the sign language, being nothing but "loud mouth", as the Indians express it, and though it is built on a dozen of experiments extended through forty years, and flung forth by equipment worth millions of dollars, the old-time Indian prefers the silent sign.



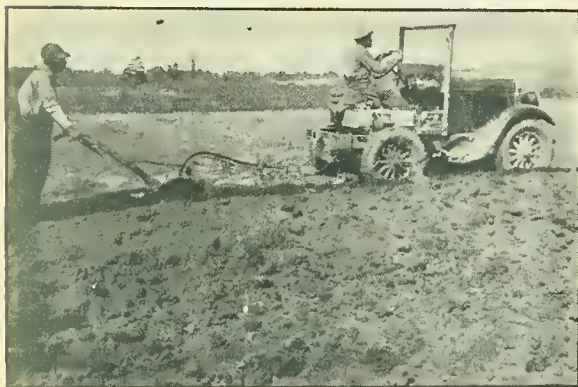
From Left To Right: Strange Owl, Bird Rattler and Major General Scott, Sitting In The Central Tipi.
(Random enlarged frame from the six reels taken at sign council tipi)

After council members were all seated around the western wall, General Scott opened the meeting with signs: "My brothers", he said, "you have come from the four winds." After this greeting, the Indians of the various tribes sign-talked in turn. Only four among the fourteen members gave sign-talk stories. These were Bitter-root Jim, Tom White Horse, Strange Owl and Mountain Chief. Mountain Chief, one of the best sign-talkers (who is still living at the present writing), gave his talk outside in front of the tipi, where he was persuaded by the photographers in order to get the best possible light. In all, six reels were exposed at the historic sign council at Browning. None of these, however, included a "sound track;" that is, they were silent motion pictures.

(To Be Concluded In The Issue Of November)

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ONEIDA INDIANS PUSH GARDEN PROGRAM



The Oneida Indians of Wisconsin (Tomah School Jurisdiction) have determined to make the most of their reservation's principal resource - good agricultural soil. They are planning to increase their dairy holdings and to raise vegetables as cash crops.

The number of horses on the reservation is small; much of the plowing and harrowing, consequently, has been done by using an old cut-down automobile pictured above.

* * * * *

RECENT CHANGES OF ASSIGNMENT

Mr. Carl Beck, formerly stockman at the Navajo Agency, has entered on duty as superintendent of the Western Shoshone Agency, Nevada, in place of Mr. Emmett McNeilly, who has gone to Rocky Boy's Agency, Montana. Mr. Charles H. Berry, superintendent at the Cheyenne and Arapaho Agency, Oklahoma, is being transferred to the superintendency of the New York Agency at Salamanca, New York, in place of Mr. William K. Harrison, special agent in charge. Mr. Guy Hobgood, superintendent of the Truxton Canon Agency at Valentine, Arizona, will take the superintendency of the Cheyenne and Arapaho Agency.

CECIL DICK, YOUNG CHEROKEE PAINTER

By Maud Parker



Cherokee Men On Their Way To The Council Of Their Tribe.
(Mural at the Sequoyah Indian School, Tahlequah, Oklahoma)

Cecil Dick, full-blood Cherokee, was born September 16, 1915, near Rose, Oklahoma. He was orphaned as a child, and his schooling has consequently been somewhat varied. He has been a pupil at the Seneca Indian School, at Wyandotte, Oklahoma, at the Chilocco Indian School and at the Sequoyah Indian School.

Wishing to get special training in art work, he went to the Santa Fe Indian School for a year; then he returned to Sequoyah to finish his high school course in 1936.

Cecil Dick has painted murals at Sequoyah and at Bagley High School in Oklahoma; and has had his pictures exhibited in Tulsa, Albuquerque, Chicago, San Francisco, Washington and New York.

THE FLAMBEAU FISH HATCHERY

(This article is taken from an article by Ben C. Gauthier in the "Flambeau Blue Book", which is issued by the Flambeau Tax-payers' Association, and from material furnished by the Wisconsin Conservation Commission.)



George W. Brown, President of the
Tribal Council, Lac du Flambeau
Band of Lake Superior Chippewa.
(Wisconsin Conservation Department
Photograph)

The Lac du Flambeau Indians of the Great Lakes Agency, Wisconsin are deeply interested in maintaining their reservation as a fine fishing area. Their fish hatchery, built by CCC-ID, and operated for the tribe by the Wisconsin Conservation Department, is making this possible.

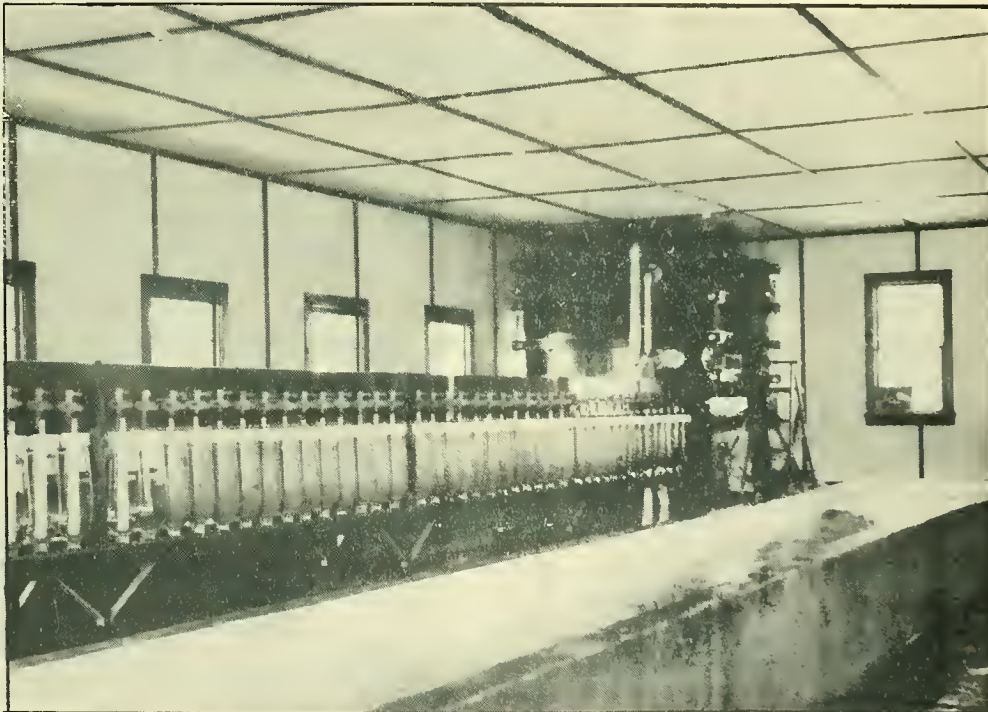
The hatchery consists of a group of three buildings, located on tribal land at the south end of Pokegama Lake. In the hatchery building itself, the young muskellunge and wall-eyed pike fry are hatched; in the net house, built along lines approved by the Conservation Commission, the 45 nets are stored; and in the boathouse the three motorboats, the three other boats and their equipment are housed.

Twelve to twenty men are employed at the plant, according to the seasonal demand. The workers start gathering the spawn in the smaller outlying lakes - where the water is warmer - in the early spring, and work in toward the Flambeau chain of lakes. The eggs are hatched in glass jars, about six to twenty-four days being required. The fry are planted as soon as they are hatched, since it is necessary to get them into their natural habitat and on their natural diet as soon as possible. The muskellunge spawn first - beginning before the ice goes out - and the pike spawning season follows soon after.

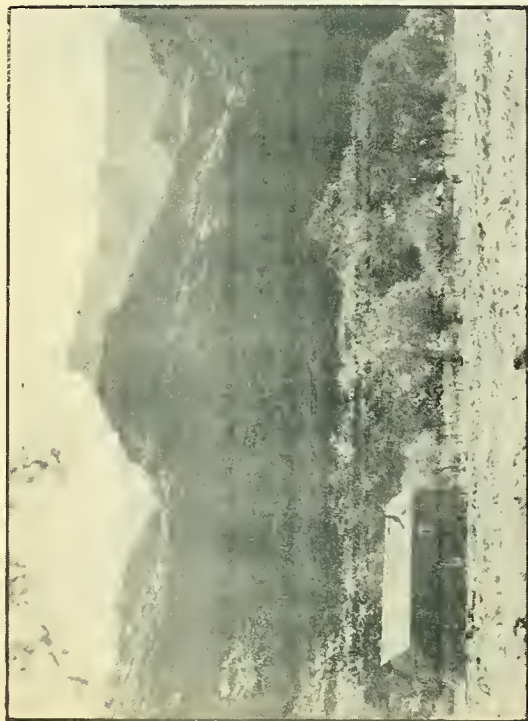
The fry are distributed to all the lakes in the reservation which are suitable for the propagation of fish. A pro-rata system based on the acreage of the lakes is used in allotting the fry.

An allied project at Lac du Flambeau is the proposed construction of a bass rearing pond, whose object would be to give protection to bass fingerlings until they reach a size which will give them a more likely chance of survival - that is, from three to six inches in length.

George W. Brown, president of the tribal council, says of these projects: "Our lakes have always been great fishing waters. When only the Indians lived here we did not need to think about hatcheries. Now white people in large numbers come here to fish. We want them always to have good luck and to make good catches in our waters, so we are hatching and planting fish, particularly pike and muskellunge. If the fishermen who come here make good catches and land big ones, they will want to come again. They will rent the cabins we have built and they will tell their friends about them. If many of them come, we can build more cabins."



Interior, Fish Hatchery, Lac du Flambeau. Capacity - 140 Jars.
Jars in This Photograph Are Filled With Pike Eggs Being Hatched.
(Wisconsin Conservation Department Photograph)



One of the Government Frame Homes Built
For the Supai People.



CCC-ID Workers Replacing Dirt Entrance
To a Flume With Rock and Cement Wall.



CCC-ID Enrollees Making Drops in Irrigation
Ditch to Prevent Excessive Erosion.



On the Way Out of Supai Canyon.

THREE THOUSAND FEET DOWN

By Erik W. Allstrom, Camp Superintendent, CCC-ID
Phoenix, Arizona



Looking Down Into the Supai Valley

Some peoples are by nature peaceful. When they are few in number they dare not be otherwise. The Havasupai Indians, now about two hundred in number, may belong to both groups.

Once the Apaches were warlike and aggressive. Later came the Spaniards, every bit as warlike and much more aggressive. Up on the high plateau of northern Arizona

these two races found a simple agricultural people busy working out a meager existence in a semi-arid region. Some of these folk were killed in raids and all were robbed of such wealth as they had. Northward they fled until they came to the sheer wall of the Grand Canyon of the Colorado River about sixty miles west of El Tovar, where today tourists gather to look into the mightiest of earth's chasms. A precipitous slope let them down into a side canyon, at the bottom of which they discovered a tiny but fertile meadowland. There they have lived ever since.

The Havasupai village is some three thousand feet below the level of the Arizona Plateau, and fifteen hundred feet above the Colorado River about fourteen miles away. Through the settlement sparkles the clear stream of Cataract Creek, born from springs hidden along some hundred yards of the narrow canyon floor a quarter mile away. Below the settlement are four waterfalls within about two miles, the last one with a sheer drop of two hundred eighty feet. So the Havasupais have a home valley perhaps two miles long and two or three hundred yards wide.

Of land the Havasupai tribe has 512 acres, a part of which is now being irrigated. The work of building flumes and digging irrigation ditches is being done by the men of the tribe working as CCC-ID enrollees. Each of the forty families has its small patches of ground, carefully terraced to conserve the water that comes either as rain or as brought by simple little ditches.

The land cannot produce enough for even the few needs of the villagers; some of the younger men, however, have been able to get work in the Grand Canyon National Park, and support themselves away from the home canyon.



Typical Supai Scene, Showing Method of Terracing Land for Farming. The Dark Cliff is 1,000 Feet High and the Gray One Beyond Rises Another 2,000 Feet.

To reach Havasupai one may go from the Grand Canyon or from Seligman, by car to the canyon rim. From Grand Canyon "Hilltop" there is a 14-mile horse trail to Supai, while from the Seligman or Hualapai "Hilltop" the trail, a CCC-ID project, is only eight miles long.

Except for the small quantity of home-grown food, everything used at Supai must be taken down by pack-train. Cement for masonry construction, pipe for irrigation work, every board of lumber, household utensils, canned goods, together with all clothing, must be packed in on animals. Life is exacting in many ways, yet the privilege of living in the midst of such magnificent surroundings is, perhaps, worth the loss of some of the conveniences which we think of as part of our modern way of life.

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NOTES FROM WEEKLY PROGRESS REPORTS OF CIVILIAN CONSERVATION CORPS — INDIAN DIVISION

Fire Prevention Work At Yakima (Washington) Due to the unusually warm weather which has been prevalent for the past several weeks, the fire hazard for Signal Peak and the surrounding vicinity has been very great. Because of the increased fire hazard, we are holding the entire crew on fire duty. Several new lookouts were installed on the various lookout stations to be used for the remainder of the fire season.

Work on the Signal Peak-White Creek Truck Trail is progressing very rapidly and the crews are doing very good work.

Excellent use is being made of the new kittyball field and tennis court. Very enthusiastic players turn out for both sports each evening, providing very enjoyable and entertaining pastime for both the players and spectators alike. Keith Watson.

Truck Trail Construction At Fort Apache (Arizona) Good progress was made on the Rock Creek Horse Trail, considering the hillside work and the rocky formation. A little time was lost due to the heavy rainstorms. Loy Varnell.

Bank Protection Work At Mission (California) Bank protection work was started in Yapitcha Creek. This was made necessary because of the damage caused by the floods of last season. A rock and wire revetment wall has been started and the excavation work for same is well along.

This wall, when completed, will protect the adjacent lands and keep the stream within its channel.

Another crew has started construction on a horse trail in the Potrero district, starting at a point at the southwest corner of the Mendenhall Ranch, running south-erly about one and one-half miles to a spring and thence on to the southern boundary where the fence crosses the San Luis Rey River.

Dam Construction At Fort Peck (Montana) The small dam below springs 228 and 229 was started this week. Nine hundred s.y. of sod were removed and borrow pits were opened. A small cut-off trench was made and forty-five cubic yards of dirt were moved into the fill.

The materials used on spring 228 to complete it was: one spring can, 20 feet of perforated pipe and a trench 90 feet long was made and ripped. A five wire fence was built around this spring to keep the stock out. The spring flows an average of five gallons per minute. Grant O. Smith, Sub-Foreman.

Ribes Eradication At Great Lakes (Wisconsin) The majority of the enrollees at this unit are at the present time engaged in Ribes eradication. The men, as a whole, are organized along prescribed lines, working five men in line, followed by an Assistant Leader and an Assistant Checker.

From a total of seven species of Ribes, we have found five distinct species on this reservation. The general purpose of this program is gradually being understood by our boys. The ultimate result will greatly enhance the value of the pine reproduction. The value of the pine as a scenic asset is also appreciated.

Recreational activities have also captured the interest of our boys. Recently the entire group took a trip to a nearby park where the afternoon was pleasantly spent. Joe Vandeventer, Leader, CCC-ID.

Fire Presuppression At Flat-head (Montana) The fire danger during the past few weeks has remained at Class 5, with humidity low and temperature ranging from 90 to 100 degrees. Nearly all of the planned fire presuppression force was placed on duty recently.

In spite of the hazardous conditions, however, we have had no fires within the timbered area as yet and only one fire occurred in the open. This fire started in a hayfield and was caused by the backfire from a passing automobile. Visibility has been rather poor recently because of a 200-acre fire on the Cabinet National Forest, which lies to the west of this reservation. William Trospen.

Horse Trail Construction At Wind River (Wyoming) The crew that was working on the Circle Ridge Trail has been moved to a new location on Mosquito Park, where the crew will work on the horse trails. All of the moving work was done by the trucks on duty here at the Agency

A great deal of work has been done on the mountain trails. This work has consisted of: sloping the banks, filling up ruts, cleaning all culverts and blasting all heavy rock on the right-of-way.

Native red stone, which is found in this vicinity, is being used to build flagstone walks on the CCC-ID homes here at the Agency. J. Fox.

Boundary Surveying At Tonawanda (New York) Everything has been fine to the finish and we completed our work with the surveyors. We have surveyed fourteen miles of line and have set fifty-seven monuments. Of course, all the lines were retraced, preliminary to setting the monuments.

The boys have done their work well and have cooperated with the surveyors from start to finish. One of the engineers later told me that he liked the boys so well and said: "I wish we could take them along to the next job."

We had good cooperation in this piece of work and it created a feeling that made parting kind of hard at the completion of the project.

Activities At Chin Lee, Navajo (Arizona) Since a fresh water stream flows near this camp, the boys have been fishing after working hours. Several of the boys have been telling "tall tales" about the fish they have caught; however, the largest caught this week was about ten inches long. The fish in this particular stream are not very large. Stanley R. Thomas, Sr., Sub-Foreman.

Recreational Program At Cheyenne and Arapaho (Oklahoma) The enrollee

program in recreational work is proving to be a great success. Much entertainment and activity has been enjoyed through baseball and softball games and at the present time we are holding a school in water safety. Levi Beaver.

Grasshopper Eradication At Rosebud (South Dakota) Recently we put out 90 sacks of poison bait on some 500 acres of farmland. The corn crop was looking good and doing fine but the grasshoppers started in on the outside edges of these fields, therefore we spread bait around the edges and perhaps four or five rows along the edges in the corn, too. The effect of the poison has been very encouraging in most places. The grasshoppers seem to fall off the cornstalks wherever the bait has been spread. We find about twelve grasshoppers to the square foot. This operation has to be repeated every three or four days. The 500 acres mentioned above has had to have two treatments in a single week.

A little time was lost in experimenting as to the best method of spreading the bait and also because we were unable to procure enough poison to take care of our needs. But now we can get all the bait we need and we hope to make better progress from now on.

Most of our former CCC boys are now engaged in outside work during the harvesting and threshing season. This office has made every effort possible to help these boys get such outside work, and so far, with good success. William Barnett, Assistant Foreman.

Recreational Activities At Carson (Nevada) Recently we were favored with a visit from Mr. S. S. Gurneau, who took charge of the recreational end of the activities at camp. He held several campfire meetings in which talks were given and jokes were told. Mr. Gurneau also started a soft ball tournament and a horseshoe tournament here. We will miss his services when he is called back to the Stewart Indian School, where he is employed as Assistant Adviser. Frank M. Parcher.

Progress At Northern Idaho (Idaho) We are rapidly completing some of our projects. The weather has been warm in the valley, but it is still cool up on the mountains. There have been several thunder storms accompanied by heavy rains so that the ground is fairly well soaked. This has delayed the fire season. Our baseball teams have been giving a very good account of themselves. Harold R. Wing.

Dusting Control At Crow Creek (South Dakota) The dusting control crew is very interested in its work, especially after dead crickets and grasshoppers have been seen where the dusting mixture has been used.

The crickets and grasshoppers are not under control as yet and it is doubtful as to whether they will be for some time to come, but the poison is having a great effect and many of the crickets are being destroyed.

We are trying to save a few of the fields and grasslands and hope to be successful. Gilbert Crazy Bull, Leader.

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